



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,442	07/26/2001	Masanao Kohashi	074129-0485	4440

22428 7590 04/09/2003

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 04/09/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/912,442	KOHASHI ET AL.	
	Examiner	Art Unit	
	Camie S Thompson	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed January 23, 2003 have been acknowledged.
2. Examiner acknowledges amended claim 1 and cancelled claims 2 and 3.
3. Examiner acknowledges newly added claims 7 and 8. Claims 7-8 are directed to an invention that is independent or distinct from the invention originally claimed for the following reason: Claims 1, 4-6 are directed towards a polyester fiber and claims 7-8 are directed towards a method of making a polyester dipped cord.

Since applicant has received an action on the merits for the originally presented invention. The invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-8 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142 (b) and MPEP 821.03.

4. Examiner acknowledges amended abstract.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al., U.S. 5,472,781.

Kim discloses a polyester multi-filamentary yarn comprising at least 90 mol percent of polyethylene terephthalate having an intrinsic viscosity of 0.85 dl/g wherein a dipped cord can be obtained as per instant claims 1, 4-6 (see abstract; column 5, lines 1-2; column 12, lines 8-11 and 57-59). The strength and strength x (breaking elongation)^{0.5} of the polyester fiber and dipped cord comprising at least 90 mol percent of polyethylene terephthalate is greater than or equal to 6.0 cN/dtex and less than or equal to 26 cN/dtex^{0.5} as these are physical properties of polyethylene terephthalate as per instant claims 1 and 4. Therefore, these features are inherent. In addition, the monofilament linear density, main dispersion peak temperature of loss tangent in the measurement of dynamic viscoelasticity at 110 Hz, the tenacity conversion efficiency in the dip treatment and the elongation at a specific load + dry heat shrinkage are less than or equal to 5.0 dtex, less than or equal to 147.0°C, greater than or equal to 96% and less than or equal to 7.5% respectively for the polyester multi-filamentary yarn and dipped cord comprising at least 90 mol % of polyethylene terephthalate are the physical properties of the polyethylene terephthalate as per instant claims 1 and 5-6. Therefore, these features are inherent. Claims 5 and 6 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process. See MPEP 2113.

7. Claims 1, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al., U.S. Patent Number 4,491,657.

Saito teaches a polyester multifilament yarn and dipped cord comprising at least 90 mol percent of polyethylene terephthalate having an intrinsic viscosity of 0.80 to 1.20 dl/g as per instant claims 1, 4-6 (see abstract; column 2, lines 30-39; and column 11). The strength and strength x (breaking elongation)^{0.5} of the polyester fiber and dipped cord comprising at least 90 mol percent of polyethylene terephthalate is greater than or equal to 6.0 cN/dtex and less than or equal to 26 cN/dtex^{0.5} as these are physical properties of polyethylene terephthalate as per instant claims 1 and 4. Therefore, these features are inherent. In addition, the monofilament linear density, main dispersion peak temperature of loss tangent in the measurement of dynamic viscoelasticity at 110 Hz, the tenacity conversion efficiency in the dip treatment and the elongation at a specific load + dry heat shrinkage are less than or equal to 5.0 dtex, less than or equal to 147.0°C, greater than or equal to 96% and less than or equal to 7.5% respectively for the polyester multi-filamentary yarn and dipped cord comprising at least 90 mol % of polyethylene terephthalate are the physical properties of the polyethylenelene terephthalate as per instant claims 1 and 5-6. Therefore, these features are inherent. Claims 5 and 6 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process. See MPEP 2113.

Response to Arguments

4. Applicant's arguments filed January 23, 2003 have been fully considered but they are not persuasive. Applicant argues that the Kim reference discloses a single example of a polyester fiber exhibiting a breaking elongation below $24.0 \text{ cN/dtex}^{0.5}$. Although there may only be a single example in the Kim reference, the Kim reference reads on applicants amended claim 1 where the breaking elongation is below $24.0 \text{ cN/dtex}^{0.5}$. Applicant argues that the polyester fiber birefringence of Kim is in contrast to the applicant's polyester fiber. However, applicant has not claimed the limitation of birefringence of the instant claimed polyester fiber. In addition, both the applicant and the Kim reference use polyethylene terephthalate at 90 mol % or higher repeating unit and an intrinsic viscosity of 0.85 dl/g or higher to make a polyester fiber and therefore, would be expected to exhibit the same physical properties such as monofilament linear density and main dispersion peak temperature of loss tangent in the measurement of dynamic viscoelasticity at $110 \text{ Hz} \leq 147.0 \text{ }^{\circ}\text{C}$. The applicant's claims only require a polyester fiber comprising polyethylene terephthalate – same as the Kim reference. Therefore, it would be expected for both the applicant's polyester fiber and the references polyester fiber to have the same main dispersion peak temperature loss tangent in the measurement of dynamic viscoelasticity. Applicant argues that instant claim 1 has the limitation of monofilament linear density of $\leq 5.0 \text{ dtex}$; however, it does not prove that the Saito reference cannot possess a monofilament linear density as that of the applicant's claimed monofilament linear density being that both applicant and reference use polyethylene terephthalate with a 90 % mol or higher of a whole repeating unit. In addition, applicant argues that instant claim 4 has a breaking elongation of $23.0 \text{ cN/dtex}^{0.5}$ or lower. Being that both references, Saito and Kim, and the applicant claim

Art Unit: 1774

a polyester fiber comprised of 90 % mol or higher polyethylene terephthalate, it would be expected that the Saito and Kim references can possess the same breaking elongation as the applicant's. Applicant argues that claims 5-8 utilize the fiber having all the limitations of claim. Claims 5-6 are process limitations in product claims and are not given any patentable weight. The applicant's process does not make the product different from the Saito and Kim references. In addition, the method claims 7 and 8 are withdrawn from consideration at this time. The processing conditions are not germane. There is no clear evidence of record demonstrating superior or unexpected results based on the criticality of the processing conditions. Therefore, the Kim and Saito rejections are maintained.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (703) 305-4488. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If

Art Unit: 1774

attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the Group are (703) 872-9310 {before finals} and (703) 872-9311 {after finals}.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

CYNTHIA H. KELLY
SUPERVISOR
TECHNICAL
JUL 17 2000

Cynthia H. Kelly